SNMP Management System
User Manual

Version : 5.1.8

Safety Notice

Please read the following items carefully before installing or using this device, we are not responsible for the damage due to improper use.

The output of this media converter is invisible laser radiation, which may cause damage to eyes, so do not look to the optical port. Cover the cap when do not use it.

This is integrated device including delicate components. No vibration or collision, or there will be damage to structure due. Please uninstall or maintain this device with the guidance of technical person, also operate according to the anti-static electronic process.

To protect the stable and safe operation, please ground it carefully when use it. Please do not take it apart without guidance, or there maybe irrevocable loss and we won't be responsible for that.

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Chapter 1 Introduction of management system

10/100M,10/100/1000M manageable fiber media converters offer a high price/performance ratio; realize conversion between 10M, 100M, 1000M ethernet electrical port and optical port, support variety of data rate, SM/MM, single fiber/double fiber, and SFP etc. With simple set-up and complete function management interface, it supports protocols like SNMP, WEB, CONSOLE and TELNET, and realizes the integrated management to all chassis.

Functions of Hardware:

* Support 10Base-T, 100Base-TX, 100Base-FX, 1000Base-T
* Meet standards IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3Z, IEEE802.3ah, TS1000
* With high performance auto-sensing exchanging chipset meeting industrial standard, secure and steady data transmission is ensured with non-traffic jam exchanging performance.
* Chassis supports both 10/100M media converters and 10/100/1000M media converters, and realizes mixing management of the two kinds of media converters
* 10/100M and 10/100/1000M media converter cards can realize Max.2046bytes packet at store-and-forward mode, Max. 9K bytes packet at cut-through mode
* AUTO-MDIX at electrical port, convenient for the user
* Standalone chassis with internal special communication power supply, chassis support dual redundant power supply(support OLP function)
* Fiber media converter module, SFP module, cascading card and NMS card suppot hot plug

Functions of Software:

* Master/slave structure，providing management module (master, slave), maximum 4 chassis cascaded can be managed
* Supporting protocols like CONSOLE, WEB, Telnet and SNMP
* Complete system information can be set up and displayed, including the name of the chassis, terrain information, related information of IP, constant operating time and the versions of the hardware and soft ware.
* Real time display of voltage and temperature on the cards of the media converters, tempreture of chassis and report fault in time
* Each port at local or remote devices can be set up or tracked, including the connecting status,

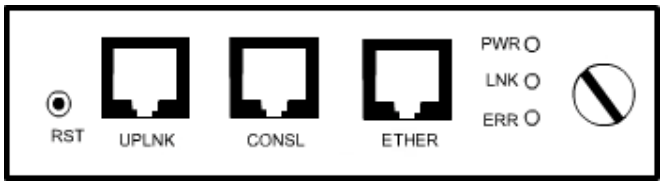
connecting speed, half/full duplex, port locked and LFP etc..

* With rate limiting, any rate between 0Mbps and 100M bps can be set at the basic frame of 32Kbps for10/100M media converter card, and any rate between 0Mbps and 1000M bps can be set at the basic frame of 64Kbps for10/100/1000M media converter card.
* 10/100M media converter cards support management of IP113A/C/F/M, reduce the cost
* 10/100/1000M media converter cards support SFP, CWDM SFP and DWDM SFP, and it can show the SFP information and digital diagnosis function
* Supporting Link Loopback test, precisely locating the failure, convenient for link test
* Remote power off alarming, precisely distinguish remote failure
* With LFP, quickly locates the failure
* With SNMP protocol, Trap Destination and Community Name and related right can be set up, real time receive and display of alarming information in way of SNMP Trap, special supervising window, bumping alarming information and mail alarming .
* Offering MIB files, convenient to be merged to the third party's SNMP
* Powerful historical alarming and operating log information tracking and management function
* Flow statistics and Pre-alarming function, real-time display of the communication status at each port
* Equipment restart, system or module restart by management software, set-up information on each module will be stored spontaneously when power off
* With graded management mode (common user, super user and administrator)
* Reset to factory set up or dip switch status are optional
* Supporting FTP online upgrading
* NMS support network device auto-sensing and adding
* With centralized management and Top tree, several chassis can be managed in the same interface at the same time; with grouping management any converter can be conveniently manipulated among many converters

Chapter 2. Instruction for Hardware

I. Instruction for management card

1. Front panel



2.Ports:

ETHER**:**10/100M RJ45connecting to Internet, management center can manage by WEB, SNMP, and TELNET through this port

CONSL **:** standard RS232 for local CLI management

UPLNK: cascading port

3.LED introduction

LED	color	Indication
PWR	Green	ON: power normal
		OFF: power abnormal or power down
UPLNK	Green	ON: internet connection normal
		OFF: non-connection to Ethernet
		FLASH: data transmission
ERR	Red	ON: abnormal(normal with flash for one time when power on)
		OFF: normal

4.Buttons introduction

RST: recover to factory default setting（IP Address 192.168.1.251, Sub mask: 255.255.255.0, Gateway:192.168.1.1）

Notice: Please press RST and insert management card to the chassis when use RST function. After around 30 minutes, the management card will recover to factory setting.

5. Port connection introduction

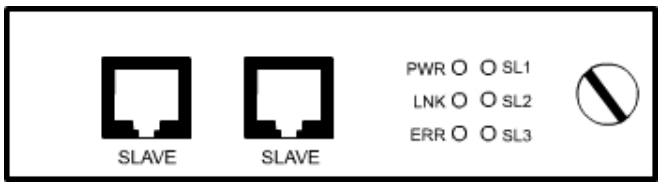
5．1 ETHER port: When connect to switch/Hub please use Straight-through cable, when connect to PC card please use Cross-over cable

5．2 CONSL port: Please use the matched serial cable(RJ45 TO DB9)

5．3 UPLNK port: use standard straight-through or cross-over cable

II. Instruction for Cascading card

1. Front panel



2.Ports:

SLAVE: connect to management card or other cascading card

SLAVE : connect to management card or other cascading card

Notice: either port is applicable since they have same function.

3.LED introduction:

LED	Color	Definition
PWR	Green	ON: Normal OFF: abnormal
LNK	Green	ON: connect to management card
		FLASH: chassis in polling
		OFF: Disconnection
ERR	Red	ON: Error, wrong chassis No.
		OFF: normal
SL1	Green	ON: chassis No. 1
SL2	Green	ON: chassis No. 2
SL3	Green	ON: Chassis No.3

4.Cable connection introduction

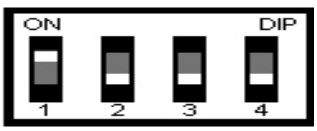
Communicate with standard RS485 cable, connector RJ45, transmitting distance can rach 1KM, pls use either straight-through cable or cross-over cable to connect the sub card.

.

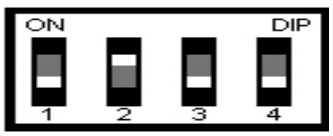
5.Switch introduction

There is a switch in the cascading card, used for setting cascading card No.. Please finish above operation before starting power supply.

Notice: When there are more than one cascading cards, each cascading card should be setting with different numbers, or there will be clash causing wrong data transmission.



Cascading card 1

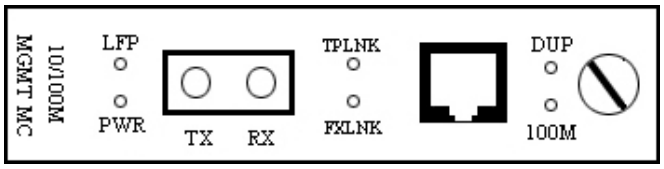


cascading card2

cascading card 3

III. Instruction for 10/100M media converter card

1. Outline description:



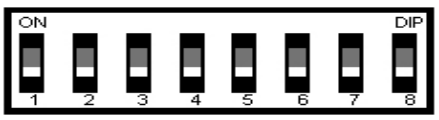
2.LED indicators

LED	Color	Definition
DUP	Green	ON: FULL Duplex OFF: HALF Duplex Flash: clash when working in hall duplex
100M	Green	ON: 100M OFF:10M
TPLNK	Green	ON: TX Link connected OFF: TX link disconnected Flash: data transmission
FXLNK	Green	ON: FX link connected OFF: FX link disconnected Flash: data transmission
LFP	Green	ON: LFP enable OFF: LFP disable
PWR	Green	ON: Normal OFF: Abnormal

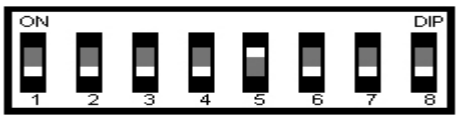
3.Introduction to dip switches

SW1	ON	RJ45 port auto negotiation closed
	OFF	RJ45 port auto negotiation enable (default)
SW2	ON	Half Duplex
	OFF	Full Duplex (default)
SW3	ON	Connect to 10M
	OFF	Connect to 100M（default）
SW4	ON	LFP enable
	OFF	LFP disable（default）
SW5	ON	Remote control closed
	OFF	Remote control enable（default）
SW6	ON	Cut-through
	OFF	Store-and-forward（default）
SW7	NULL	
SW8	NULL	

Notice:Central media converter module and remote media converter module can be replaceable as follows:



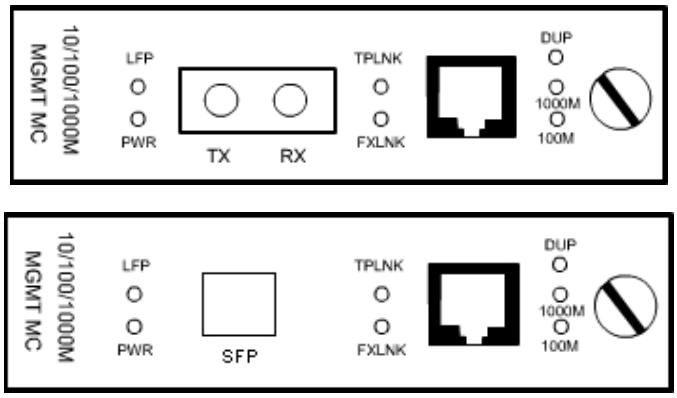
(Central module)



(Remote module)

IV. Instruction for 10/100/1000M media converter card

Outline description:



LED indicators:

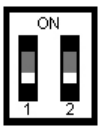
LED	Color	Definition
DUP	Green	ON: FULL Duplex
		OFF: HALF Duplex
1000M	Green	ON: 1000M
		OFF: 100M or 10M
100M	Green	ON: 100M
		OFF: 1000M or 10M
TPLNK	Green	ON: TX Link connected
		Flash: data transmission
		OFF: TX link disconnected
FXLNK	Green	ON: FX link connected
		Flash: data transmission
		OFF: FX link disconnected
LFP	Green	ON: LFP enable
		OFF: LFP disable
PWR	Green	ON: Normal
		OFF: Abnormal

Introduction for dip switches

SW1	ON	Remote control enable（default)）
	OFF	Remote control closed
SW2	NULL	

Notice:Central media converter module and remote media converter module can be replaceable as follows:

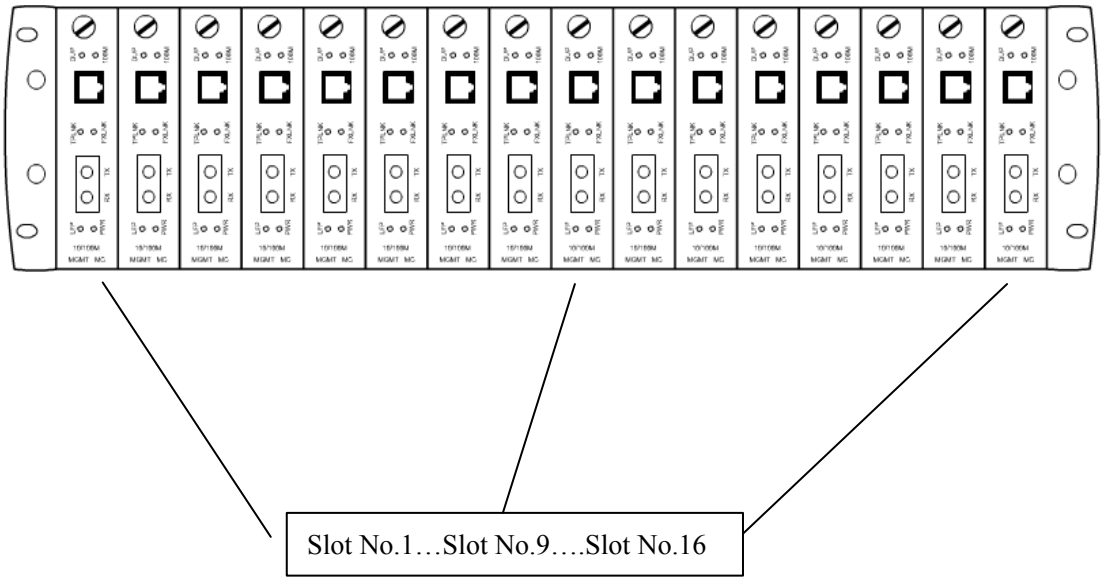
（Central module）



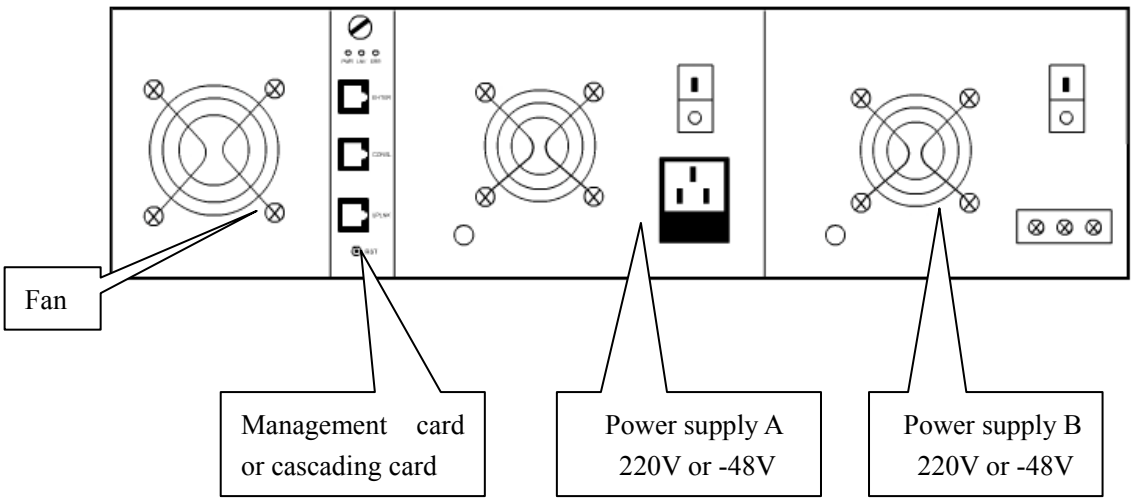
（Remote module）

V. Instruction for chassis

Front panel



Back panel



VI. Technical Parameters

1. Ethernet port

1）Standards:IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3z
2）Date rate:10Mbps, 100Mbps, 1000Mbps; HALF/DUPLEX auto-sensing
3) Connector: RJ45
4) Connecting cable: UTP CAT5 or UTP CAT5E, transmission distance up to 100m.

2. Fiber port

1）Connector: ST, SC, FC,LC
2）Operating wavelength: MM 850nm 1310nm and SM1310nm 1550nm
3）Connecting fibers: MM: 50/125, 62.5/125, 100/140μm
SM 8.3/125, 8.7/125, 9/125, 10/125μm

3. Optical parameters

Data rate	Distance	TX(nm)	S(dBm)	Pout(dBm)
155m bps	20km	1310	‹-35	-14~-8
155m bps	40km	1310	‹-35	-4~0
155m bps	80km	1550	‹-36	-4~0
1.25G bps	20km	1310	‹-24	-9.5~-3
1.25G bps	40km	1310	‹-24	-11.5~-3
1.25G bps	80km	1550	‹-23	-3~2

4.Working Environment:

Operating Temperature: 0～50℃
Storage Temperature:-10～70℃
Humidity: 5%～90%(non-condensing)
Dimension for rack:315mm (L)×425mm (W)×92mm（H）
Dimension for standalone type: 156mm (L)×128mm (W) ×32mm (H)
AC power: 85VAC～265VAC
DC power: -40VDC～-57VDC

Chapter 3. Instruction for Software

I.Hardware platform and software environment

1.Hardware platform

* The hardware platform of NMS is micro server like DELL POWEREGGE 1300, SUN working station, IPX or more advanced are also applicable.
* System memory is above 64M, 128M is recommended.
* Capacity of hard disk should be over 10G, 20G is recommended for storing vase management data.
* CPU should be more advanced than Intel PIII 500E, Intel PIII 800EB is recommended.
* 1280*1024 displayer is recommended.

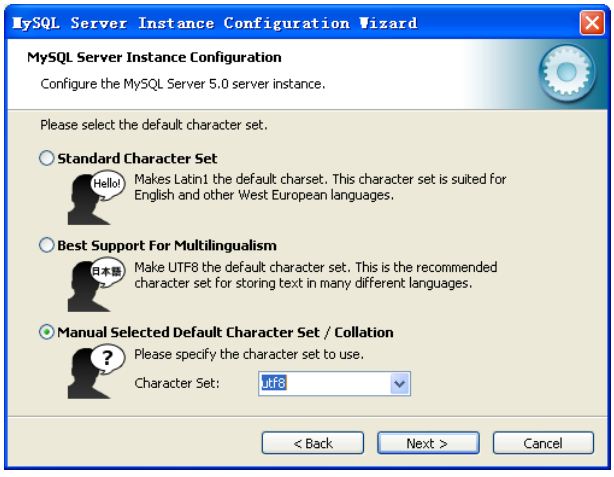
2.Software Environment

* Java environment is set as default while installing NMS, user can use java in the system or default jre in the installation file. Jre 1.5 above should be used if choose java environment in the system.
* Mysql should be newer than version 5.0
* Web management supports Netscape4.0, IE5.0 and higher version web browser.

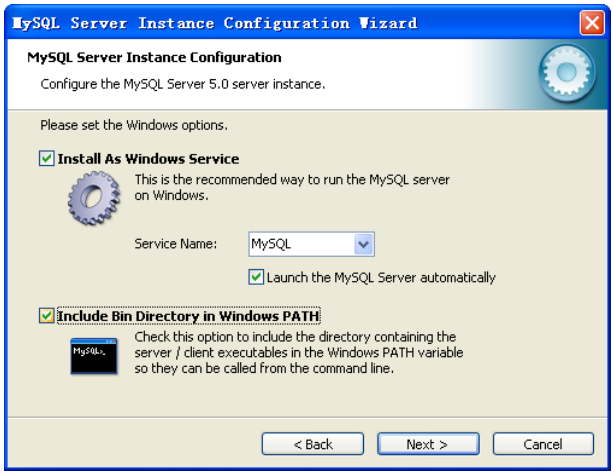
II. Installation of NMS management software

1.MYSQL Installation

Click disk and install MySQL Setup.exe，then click “next” continuously to finish the installation, and pls pay attention to 3 steps:


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please select the default character set.
Standard Character Set
Hello!
Makes Latin1 the default charset. This character set is suited for English and other West European languages.
Best Support For Multilingualism
日本語
Make UTF8 the default character set. This is the recommended character set for storing text in many different languages.
Manual Selected Default Character Set / Collation
Please specify the character set to use.
Character Set:
utf8
< Back
Next >
Cancel

Choose “Manual Selected Default Character Set / Collation”, and then choose Character Set as “utf8”，then choose“Next”；

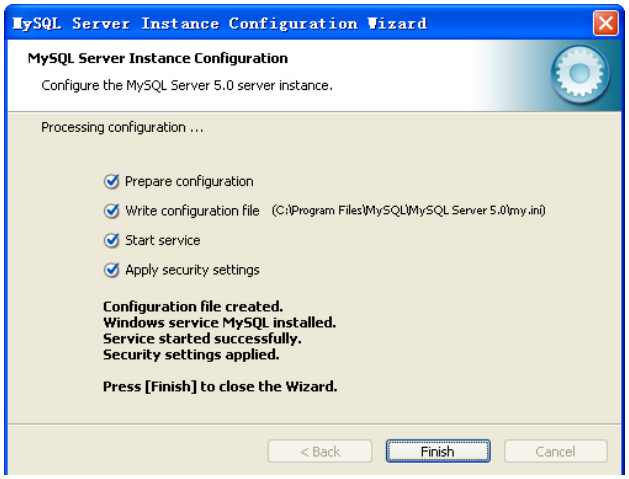

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the Windows options.
Install As Windows Service
This is the recommended way to run the MySQL server on Windows.
Service Name:
MySQL
Launch the MySQL Server automatically
Include Bin Directory in Windows PATH
Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.
< Back
Next >
Cancel

Choose “Include Bin Directory in Windows PATH”，then click “Next”

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.0 server instance.
Please set the security options.
Modify Security Settings
New root password:
****
Enter the root password.
Confirm:
****
Retype the password.
Enable root access from remote machines
Create An Anonymous Account
This option will create an anonymous account on this server. Please note that this can lead to an insecure system.
< Back
Next >
Cancel

Input “New root password” 1234, “Confirm” 1234, and then click “Next”.

Click “Finish” to finish Mysql configuration.



2.SNMP Operation

Put the installation disk into CD-ROM driver, then double click setup.exe, then enter the following interface, and a group of configuration file is provided to help user actively deploy the software. All configuration files are in contents “resource\config”.

1. Database connection configuration (db.xml)

Configuration files are in contents “resources\config”, including options as follow:

* driver: always configured as com.mysql.jdbc.Driver
* url: connection string of database, format ： jdbc:mysql://[ip]:[port]/[database]?autoReconnect=true&useUnicode=true&characterEncoding=utf8，substitute IP in the string with installed server IP address of mysql database，also substitute [port] with server port with mysql database，substitute [database] with nms database name，database default as nmsdb.
* name: appoint user name for database connection and using, default as root
* password: appoint password for database connection and using, default as1234
* maxidle、maxactive、maxwait is the configuration of database connection pool, operate with the default setting.

2.SNMP operation configuration (server.xml)

Configuration files are in contents “resources\config”, including configurations follow:

* trapport：appointed port for receiving alarming and monitoring, default as 62
* maxtrap：Mark the Max. storage for historical alarming record(default as 60000),when alarming record is over 60000，the oldest alarming record will be deleted automatically. Trapdel decides the deleting quantity.
* trapdel：Appoint the deleting quantity by the system automatically at one time, default as 5000.
* maxlog：mark the Max storage for system operation log，default as 60000.when the operation log is over 60000, the oldest operation log will be deleted automatically. Logdel decides the deleting quantity.
* logdel：Appoint the deleting quantity by the system automatically at one time, default as 5000.
* pollsync：appoint thread pool using in polling of system, thread No defaulted as 8,，less than the value of thread pool minus 5.

3.Thread pool configuration (server.xhml)

Threadpool under server.xml configures the thread pool of the system. With advanced thread pool technology in NMS, the capability to deal with software has been highly advanced. But it does not mean the more thread, the better, so generally these are not recommended to revise. But user can set the sise of the thread pool

according to PC's property.

* initsize：configure the initial size of thread, default as 15
* maxactive：Configure the Max. enable thread of the system, default as 15
* maxidle：Configure the Max. free thread of the system, default as 15
  default set for pollsync mentioned above，is 8，which means 8 of the present 15threadintread pool are used in polling device. The rest 7 are used for processing other services and temporary tasks.

4.Interface configuration (gui.xml)

Configuration files are in contents "resources\config", including configurations as follow:

* language：Appoint system language, including Chinese and English, indicating English and Chinese interface respectively. This can be set while logging in the logging interface, or through "language" under "help" main menu.
* Skin：appoint system interface style，this can be set through"outline"under main menu "help".
* font：appoint the font in the interface
* size：appoint the size of the characters in he interface
* style：appoint the character style，0 stands for standard, 1stands for thick heavy lines, 2stands for italic, 3stands for italic thick heavy lines.

5.Device Configuration

In installation contents "resources\config\device", these files show the configuration of the devices，no need of revision。

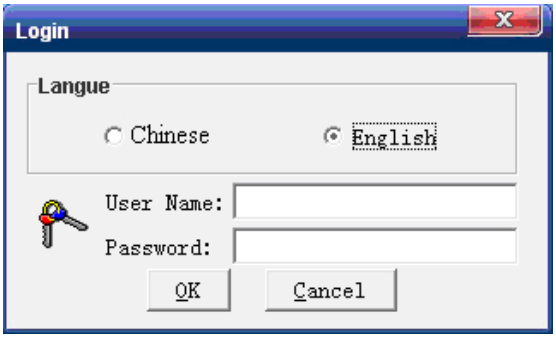
6.Trap rules configuration

Configuration files in contents "resources\config\device" are system Trap rules configuration files. User can set configuration through "alarming rules" under "alarming menu" in main interface.

III. Introduction of SNMP software

1.Log in

Double click nms.batin installation contents to start system. After initiation log in interface shows itself automatically as follow:

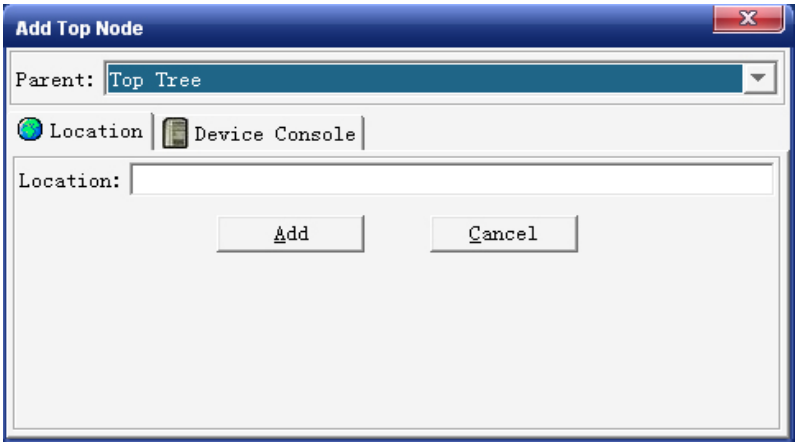


Notice: the initial super user name is “admin”, and default password is “123”.

2. Adding Node

2.1 Add node manipulating

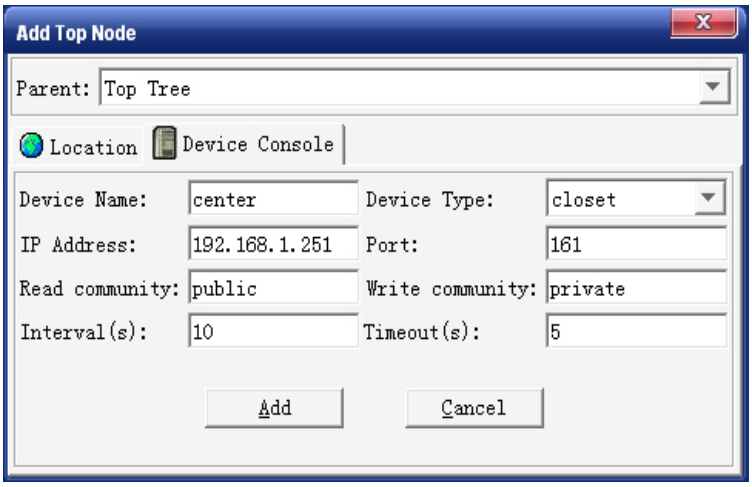
Choose menu “【configuration】”—> “adding node”, system will pop out adding node window as follow:



2.1.1Add location node

Choose location page in window, and input location name in the location input frame. Mark the adding location belongs to which node in the father node, then click button “Add”, then system will add new location node under “father node”.

2.1.2 Add IP node



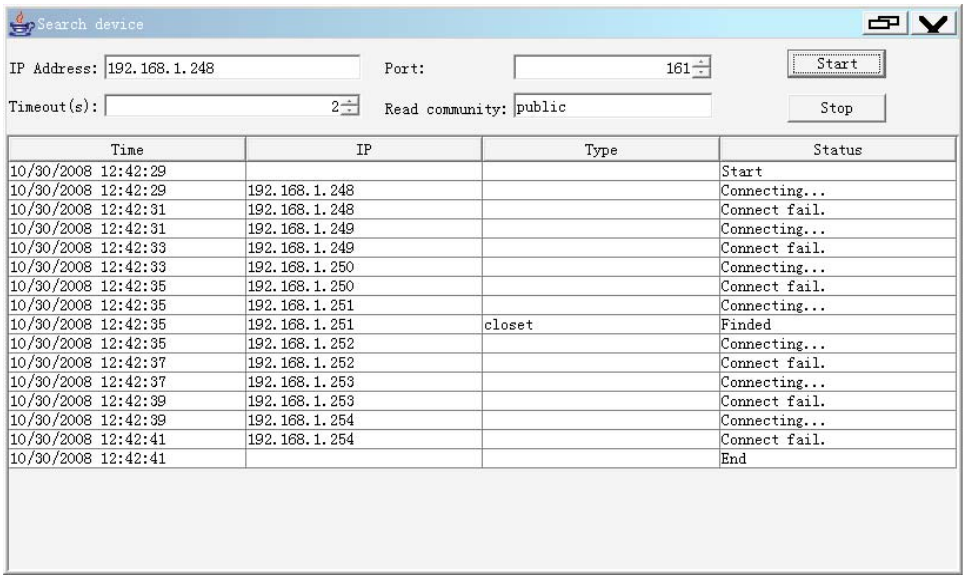
Input device name, device model that will be added, master management card IP address, SNMP port (default as 161), read community (default as public), write community (default as private), Interval(default 10 seconds), Timeout((default 5 seconds))

Notice:1.Hereby polling interval means the minimum time interval between two polling at the same node, default value is 10 seconds.

2.read community of the adding device must be the same as SNMP community configured in network management card (refer to web management user manual), or system can not be visited, can not check and change the working status of adding devices.

2.2 Add node automatically

Choose menu “system”→ “auto searching”, and see the interface as follow:



Time	IP	Type	Status
10/30/2008 12:42:29			Start
10/30/2008 12:42:29	192.168.1.248		Connecting...
10/30/2008 12:42:31	192.168.1.248		Connect fail.
10/30/2008 12:42:31	192.168.1.249		Connecting...
10/30/2008 12:42:33	192.168.1.249		Connect fail.
10/30/2008 12:42:33	192.168.1.250		Connecting...
10/30/2008 12:42:35	192.168.1.250		Connect fail.
10/30/2008 12:42:35	192.168.1.251		Connecting...
10/30/2008 12:42:35	192.168.1.251	closet	Finded
10/30/2008 12:42:35	192.168.1.252		Connecting...
10/30/2008 12:42:37	192.168.1.252		Connect fail.
10/30/2008 12:42:37	192.168.1.253		Connecting...
10/30/2008 12:42:39	192.168.1.253		Connect fail.
10/30/2008 12:42:39	192.168.1.254		Connecting...
10/30/2008 12:42:41	192.168.1.254		Connect fail.
10/30/2008 12:42:41			End

Search devices automatically

Input the beginning IP, SNMP(default as) Input the initial IP address, SNMP port (default as 161), overtime time (default value at 2 sec), SNMP read community (default public) in the interface, then click start. System will find 255 one by one from inputting the initial IP address， like showing in the above diagram, system will visit 192.168.1.248 to 192.168.1.255 in succeed. If device is found, device will be added into root node “top tree”.

3. System

3.1 User switching

Input new user name and password in the log-in interface, then confirm. If user name and password are both right, after confirmation the log-in interface will close itself, and on the left of the status bar there will be the newest log-in user and user name.

3.2 User management

User right is divided into 3 grades：

1. System Admin：Super user has all user right.
2. Net Manager：Network administrator, has all other rights except the user management.
3. Comm User：common user, can only browse system and device information, cannot revise system data or change device working status.

Notice: Only System Admin can add, delete user.

3.3 Polling

3.3.1 Only after the polling function is started, system will show the status of the device in time on top tree, and automatically will find chassis, slave chassis, local and remote media converter under the IP node.

When polling starts, system will automatically visit each IP node in the polling queue. And there will be chassis nodes via querying results.

3.3.2 Cancel/recover polling of the appointed node

Cancel polling node: choose an IP node in top tree. Then choose “configuration”→ “cancel polling”, or click the right of the mouse to choose “cancel polling” to delete the chosen IP node from the polling queue. Then system polling will automatically skip this node when polling, and this node’s name will appears as grey.

Recover polling node: choose an IP node which is not included in the poling queue, then choose “configuration”→ “add polling”, or click the right of the mouse to choose menu“ add polling”. Then add the chosen IP node to the polling queue to recover polling.

3.4 Backup

Choose menu “system”→ “backup”, system will back up database to “resources\backup” under installation contents. The format of the backup file is: [backup time].sql. The backup contents include the structure of the database, all records in the database (user table, top tree nodes, historical alarming information, historical operation log and device model No. system supports.)

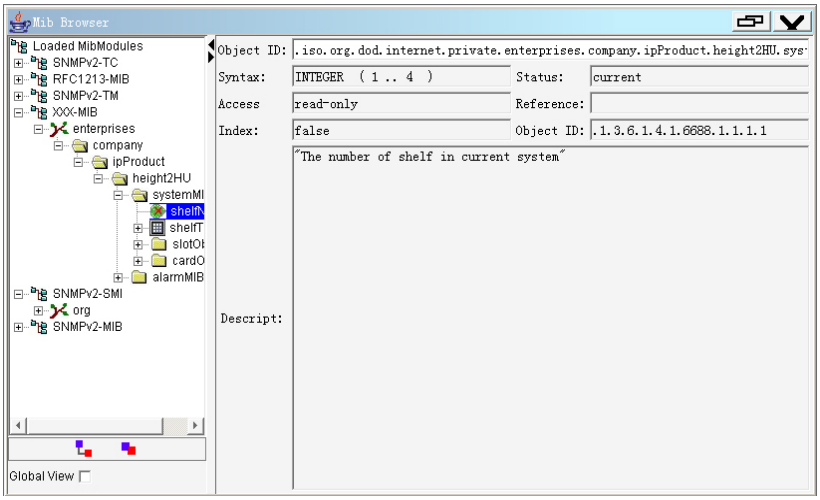
3.5 Recover

The up of the interface list the backup file in content “resources\backup” under installation contents. Click “refresh”, file table will be recreated.

Choose a backup file, click “recover”, system will recover database according to chosen backup files.

3.6 Mib browser

System provides a visual interface for querying SNMP mib files, this function can be provided to the third party’s network management software application. Choose menu “alarm”→ “Mib Browser”, see as below:



3.7Query alarming history

Please choose querying conditions in the up of the window, but alarming time, operating status, alarming status, class for alarming, NE and number of record are relations. Alarming time is prerequisite condition, other conditions do not need to be added to the query conditions if not chosen.。After input query conditions click “filter”, all tracked alarming information will be displayed in the alarming information table.

Choose deleting alarming in alarming information table, then click “delete”, system will delete the chosen alarm from database.

Click “condition delete”, the input query condition will be taken as “deleting condition”, delete all record that comply with the condition.

Click “store as”, the storing-file dialog box will pop out; all alarm information in alarming information table will be stored to the appointed file.

Click “reset” to clear the alarming table.

3.8 Operation log query

System will store user's operation log to database, and display all operation log (for this after log-in) on operation log page in the main interface. Or choose menu "alarm"→ "operation log" to track historical operation log record.

On the up of the window there are query conditions choices, including time range, user. Click "query" after chose a condition, and then the queried log condition will be seen in the log table.

Choose the deleting record in the log table, click "delete choice" to delete the chosen record from the database.

Click "delete condition", the above query condition will be set as the condition for the operation log that will be deleted.

Click "store as", store-file box will pop out, and then store the operation log record to the appointed file.

Click "reset", the log table will be cleared.

3.9 Alarming rules configuration

3.9.1All alarms are listed in this rule-window, including rules as below:

1. Alarming grades: user can set each alarming's grade, when alarm information is received, system will mark its grade as the configured grade.
2. Alarming voice: if voice file is appointed, when alarm information is received, system will play the voice file.
3. Pop-out window: if this item is chosen, when alarm information is received system will pop out a window to remind.
4. Filter: if this item is chosen, system will quit the alarm information when it receives it, do not store in database or inform in the interface.
5. Mail alarming: if this item is chosen, system will send alarm singal through mails

When alarming voice is on the status of edition, click " " to open choose-file dialog box, and then choose voice file there. All input the full path of the voice file, and then click " " to play the appointed voice file.

After finish configuration, click " " to store the configuration to the configuration file. Click " " to reload rules from configuration files.

3.9.2 Trap Alarm

There are two prerequisites that should be met to ensure the receiving of the sending alarming information.

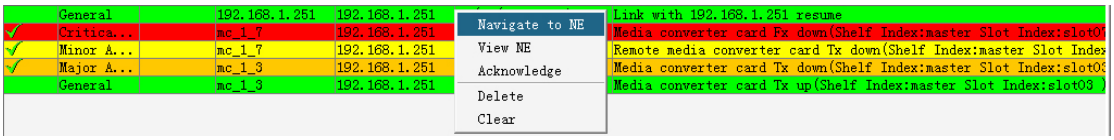
1.Alarming receiving IP address should be set the same as that of the PC operating NMS.

2.The standard alarming port of SNMP is 162. Since system will send alarming information to PC through 162, so all other Trap monitoring software like

SNMPc should be closed before start NMS.

After receiving one piece of alarming information, system will set the class for alarming by “alarming rules”, and then display it in the device alarming page of the main interface. Different colors mean alarming in different classes: red means serious alarming; orange means main alarming; yellow means minor alarming and green means common ones.

The alarming table in the alarming page is as below:


General 192.168.1.251 192.168.1.251 Link with 192.168.1.251 resume
Critica... mc_1_7 192.168.1.251 Media converter card Fx down(Shelf Index:master Slot Index:slot0
Minor A... mc_1_7 192.168.1.251 Remote media converter card Tx down(Shelf Index:master Slot Inde
Major A... mc_1_3 192.168.1.251 Media converter card Tx down(Shelf Index:master Slot Index:slot0
General mc_1_3 192.168.1.251 Media converter card Tx up(Shelf Index:master Slot Index:slot03
Navigate to NE
View NE
Acknowledge
Delete
Clear

Double click one of the alarming; system will automatically apply network element function in right-key menu.

Choose right-key menu “already know”, system will automatically mark the one who dealt with this alarming record is the current log-in user.

Choose right-key menu “locate to NE”, system will choose related device node in top tree.

Choose right-key menu “delete”, this alarming information will be deleted, but it can still be tracked by “query alarming history”.

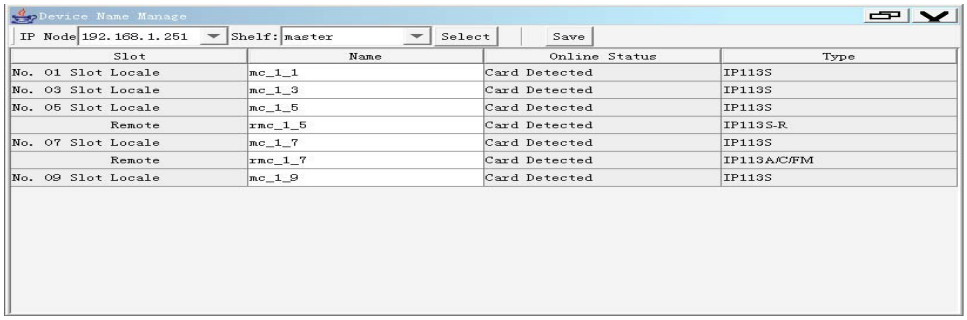
Choose right-key menu “clear”, all alarming in the table will be cleared, also alarming can be tracked by “query alarming history”.

3.10 Device setting copy/paste

Choose a media converter node in device top tree, then choose menu “config”—> “config copy”, or click the right of the mouse to choose menu “config copy”, system then will copy the chosen media converter’s setting in “media converter management” interface to memory.

User can choose the media converter node whose setting will be pasted in top tree (multi-options or one option) but the type of the chosen node should be the same as that of the copying device.） , then choose menu “set”→ “paste setting”, system will set the copied setting to the chosen device one by one.

3.11 Device name management


Device Name Manage
IP Node 192.168.1.251
Shelf: master
Select
Save
Slot
Name
Online Status
Type
No. 01 Slot Locale mc_1_1 Card Detected IP113S
No. 03 Slot Locale mc_1_3 Card Detected IP113S
No. 05 Slot Locale mc_1_5 Card Detected IP113S
Remote rmc_1_5 Card Detected IP113S-R
No. 07 Slot Locale mc_1_7 Card Detected IP113S
Remote rmc_1_7 Card Detected IP113A/C/FM
No. 09 Slot Locale mc_1_9 Card Detected IP113S

Choose IP node in the interface, then choose chassis, and then click “choose”. Then system will display all information of local and remote media converters under the chosen chassis. The name can be edited. After modifying the name of media converters, click button “restore”, and apply it to top tree.

3.12 Outline

User can choose Metal、CDE/Motif、Windows、Windows Classic independently.

4.Media converter management

From up to down, the diagram shows the main chassis, slave chassis 1, slave chassis 2 and slave chassis 3. If there is slave chassis, slave chassis status will be displayed in related place in the diagram. The number on the up of the chassis diagram indicates the slot No.

Each indicator’s status of the media converters showing in the diagram is the same as that of the related media converter’s indicators, which is convenient for user to know the working status directly.

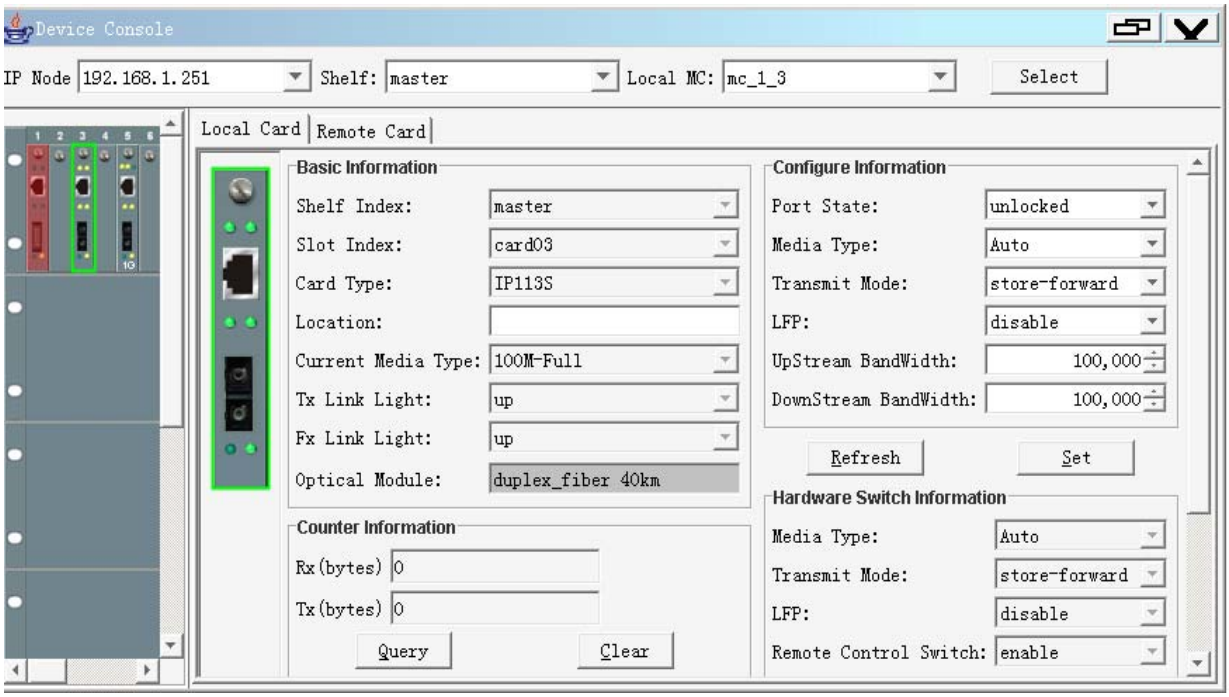
Slot No.1--- The remote media converters are not connected and covered with red mist

Slot No.3--- For 10/100M media converter, central media converter and remote media coverter work normally

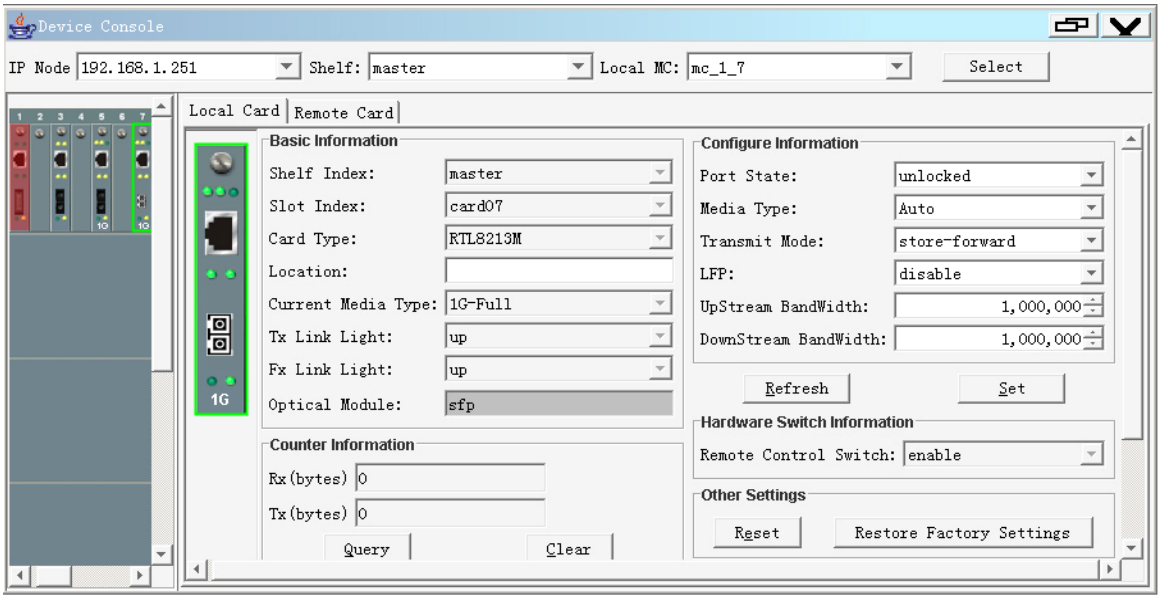
Slot No.5--- For 10/100/1000M media converter, central media converter and remote media coverter work normally

Slot No.7--- For 10/100/1000M SFP media converter, central media converter and remote media coverter work normally

Slot No.9--- Remote media converter is taken away(if delete the card, search the card in the top tree and delet the node)



10/100M media converter management interface



10/100/1000M media converter management interface

The device information interface includs two parts: central card information and remote card information.

Only items on the status configuration panel can be set, basic information and hardware switch's status is only for read.

Basic information includs slot position, Model No., full duplex and half duplex, FX port information, TX port information and optical module information.

Information:

* Port status means opening or closing the Tx port of media converter.
* 10/100M card bandwidth means upstream band width/ down stream bandwidth value of Tx port, 32K×N；
* 10/100/1000M card bandwidth means upstream band width/ down stream bandwidth value of Tx port, 64K×N；
* Link test means the test of the integrity of the fiber link.
* Power-down test is to diagnose failure in remote card is caused by power down or disconnection of fiber link. If remote card can not be found due to power down, then in "power–down detect" bar of remote card basic information power-down will be shown.
* Click "refresh" to regain from device all configuration and status information of media converters.
* Click "set" to send configuration of status setting panel to management card, the management will apply the configuration to the current media converters.
* Click button "reposition" to reposition the media converter, no influence to other devices.
* Click "recover to default setting" will recover the status of the media converters to the initial setting.
* Click "force to switch setting", management card will apply the hardware switch setting for Tx data rate, transmission mode to current media converters.

Notice:

1.Centrol and remote media converters turn on and turn off LFP function respectively

2. If "REM" switch in local card is set as disable, system can not configure local and remote media converter. Buttons like "set", "reposition", "recover to default setting", "force to switch setting" will be in Grey, can not be activated.

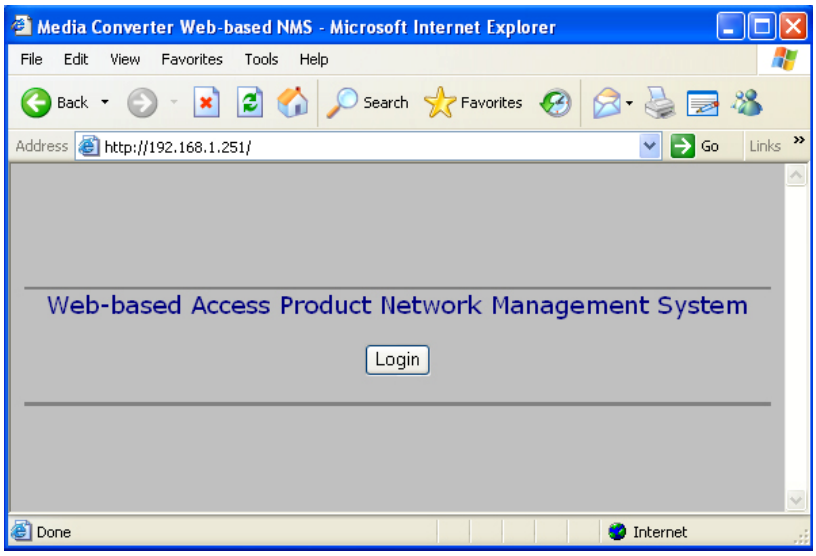
IV. Introduction of WEB software

1. Loge in

Each main management card has a set of embedded software visited by web, which is convenient for user visit the rack directly through web page.

Input http://management card's IP in the address bar of IE browser, then enter web management log-in interface as below:

(Notice: The IP of all management cards is default as 192.168.1.251)

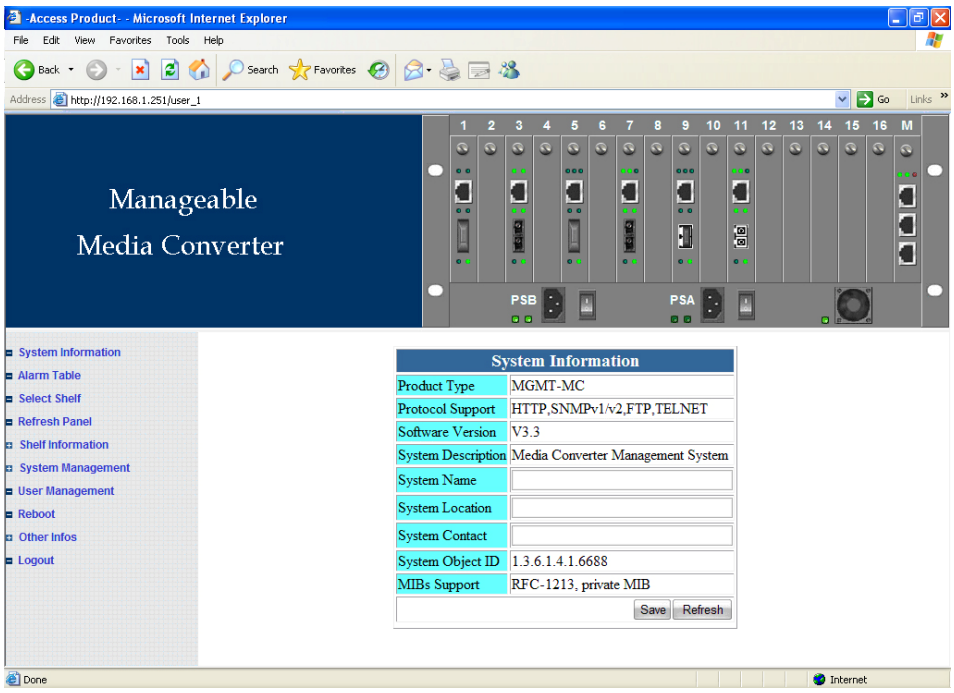


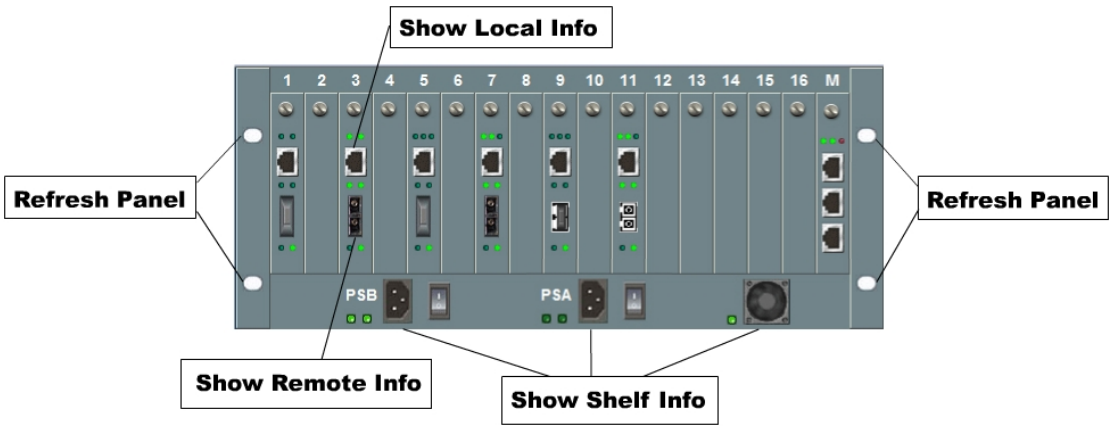
Click "login" in this page, login window will pop out as below:

Input user name, password; the initial user name is admin and password is 123.

2.System information

After login, the web page will automatically shift to system information page as below:





Slot No.1, No.5 and No.9 --- the remote media converters are not connected

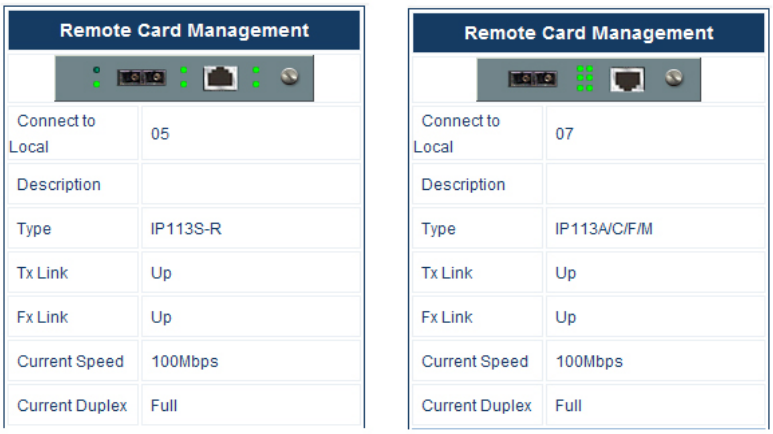
Slot No.3 ---10/100M central media converter and remote media coverter work normally

Slot No.7 ---10/100/1000M central media converter and remote media coverter work normally

Slot No.11 ---10/100/1000M SFP central media converter and remote media coverter work normally

Click electronical port of media converter shows the information of central card

Click optical port of media converter shows the information of remote card



Remote Card Management	
Connect to Local	05
Description	
Type	IP113S-R
Tx Link	Up
Fx Link	Up
Current Speed	100Mbps
Current Duplex	Full

Remote Card Management	
Connect to Local	07
Description	
Type	IP113A/C/F/M
Tx Link	Up
Fx Link	Up
Current Speed	100Mbps
Current Duplex	Full

If the 10/100M remote unit connect with IP113S or IP113A/C/F/M, can chen\ck different information of the above, setting function is the same with SNMP

In SNMP community configuration table

SNMP Community Configuration

SNMP Community	Access Right	Delete
public	Read Only	☐
private	Read/Write	☐

SNMP Trap Receiver Configuration

Trap Ip Address	Trap Community	Trap Version	Delete
192.168.1.66	public	V1	☐
192.168.1.77	public	V1	☐
192.168.1.88	public	V1	☐
192.168.1.99	public	V1	☐

Apply Refresh

If right of visit is Read Only, then configuration is SNMP read community, which means when PC software sends SNMP pack reading device information, and associating password must be the same as the configuration value, management card will return to query result, which is relative to appointed read community when NMS adds IP node.

If right of visit is Read Write, then configuration is SNMP Write community. If when PC software operates on configuration for devices, associating password must be the same as the configuration value, management card will set configuration, which is relative to appointed Write community when NMS adds IP node.

The configuration of SNMP Trap receiving address configuration table is the device Trap alarming receiving IP address table, Max.4 addresses. If use NMS, then the address table must include the IP address of the PC where NMS is. The version of Trap means whether the format of the Trap information pack is defined by SNMP Version 1or SNMP Version2.

Click “apply” to keep Read and Write community of the current page and Trap receiving address to management card.

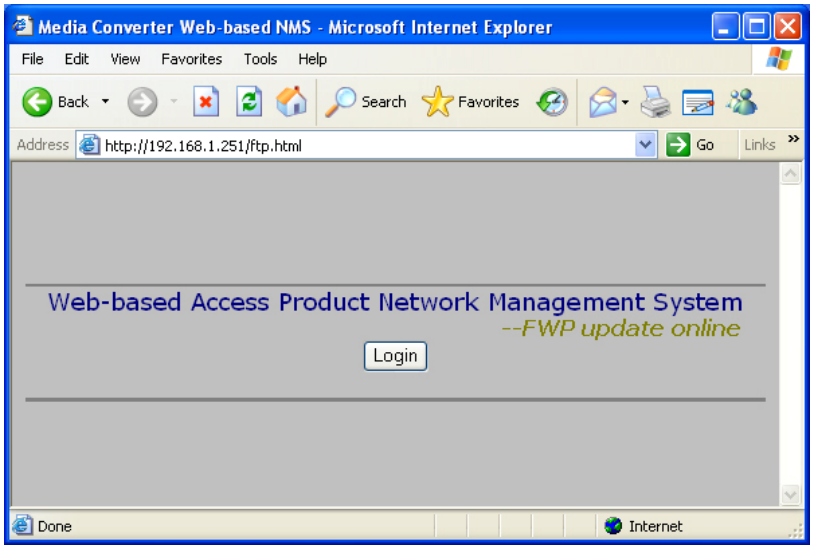
If choose “delete choice box” on the right of Trap receiving address table, click “apply.

Click “refresh” to show the latest SNMP configuration information.

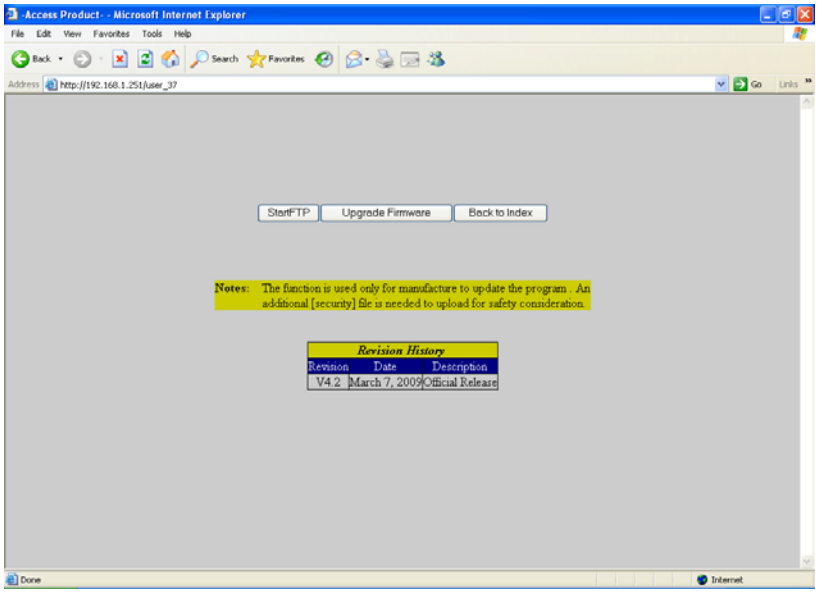
V. Introduction of FTP

Software of management can be upgraded online through FTP function. See the steps as below:

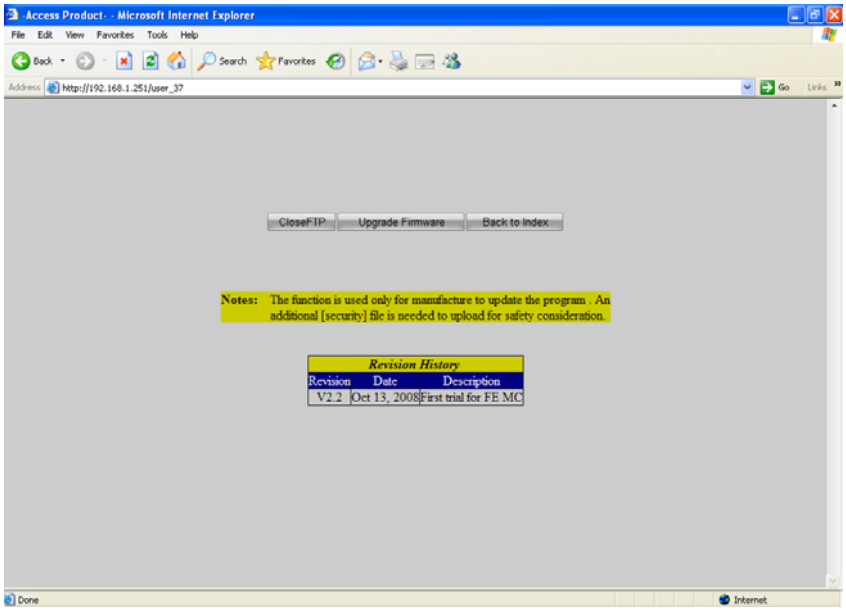
1.input http://management card’s IP/ftp.html in the browser’s address bar to enter into FTP login interface as below:



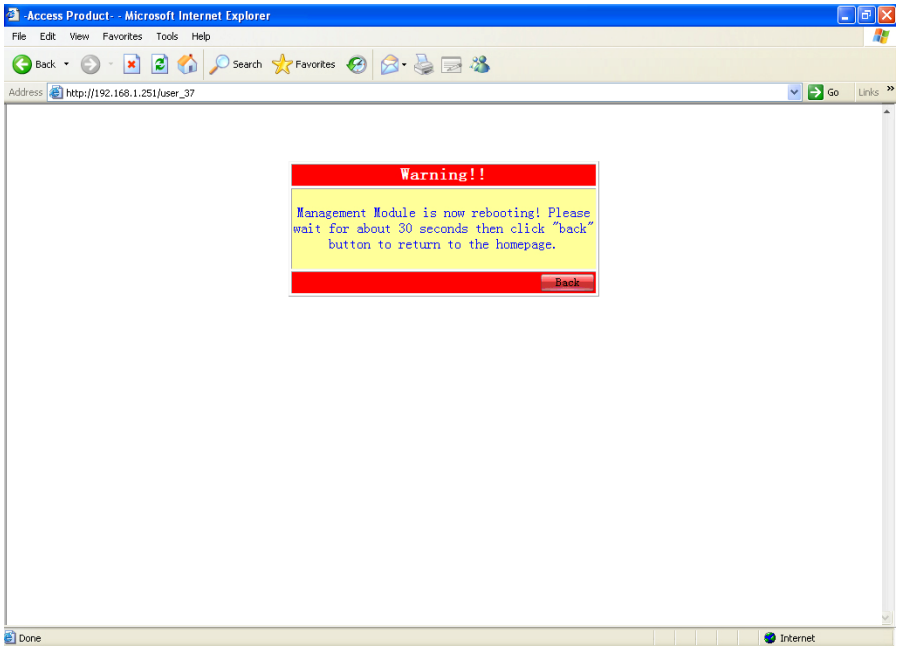
Click “login” on the page, and then input user name and password to enter into.


StartFTP
Upgrade Firmware
Back to Index
Notes: The function is used only for manufacture to update the program . An additional [security] file is needed to upload for safety consideration.
Revision History
Revision Date Description
V4.2 March 7, 2009 Official Release

Click “start” to start service, and enter into the page as below:


-Access Product- - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.1.251/user_37
Go Links
CloseFTP
Upgrade Firmware
Back to Index
Notes: The function is used only for manufacture to update the program . An additional [security] file is needed to upload for safety consideration.
Revision History
Revision Date Description
V2.2 Oct 13, 2008 First trial for FE MC
Done
Internet

Let upgrading files cover the existing files in the management card by FTP. click “upgrade programs” to start upgrading and see the page as below:


-Access Product- - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://192.168.1.251/user_37
Go Links
Warning!!
Management Module is now rebooting! Please wait for about 30 seconds then click "back" button to return to the homepage.
Back
Done
Internet

Click “confirm” to finish upgrading.

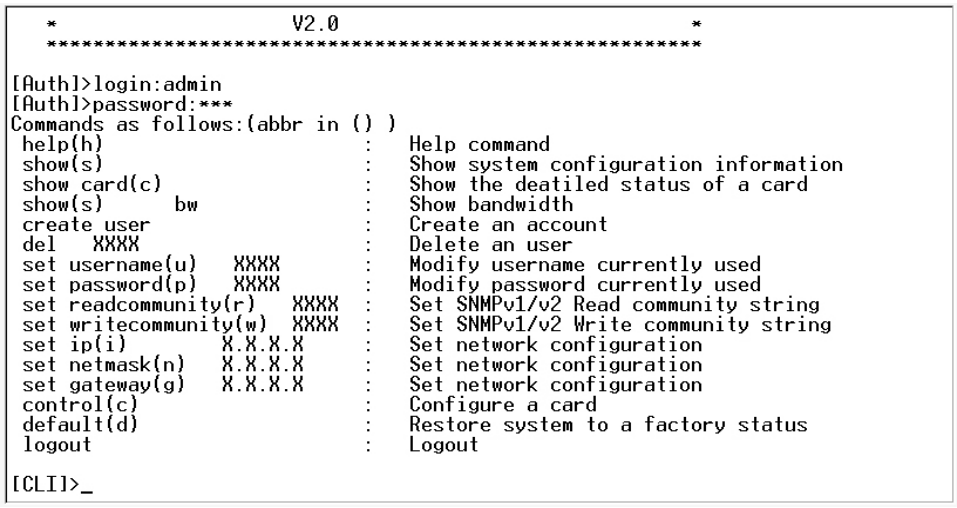
VI. Introduction of CONSOLE

1. CONSOLE connection

Connect PC with the matched RJ45 TO DB9, open the super termial of Windows and set as follows:

Baud Rate	115200 bps
Data Bite	8
Parity	None
Stop Bits	1
Flow Control	None

And then restart the PC, input the name and password and see the following information:


* V2.0 *
[Auth]>login:admin
[Auth]>password:***
Commands as follows:(abbr in ())
help(h) : Help command
show(s) : Show system configuration information
show card(c) : Show the deatiled status of a card
show(s) bw : Show bandwidth
create user : Create an account
del XXXX : Delete an user
set username(u) XXXX : Modify username currently used
set password(p) XXXX : Modify password currently used
set readcommunity(r) XXXX : Set SNMPv1/v2 Read community string
set writecommunity(w) XXXX : Set SNMPv1/v2 Write community string
set ip(i) X.X.X.X : Set network configuration
set netmask(n) X.X.X.X : Set network configuration
set gateway(g) X.X.X.X : Set network configuration
control(c) : Configure a card
default(d) : Restore system to a factory status
logout : Logout
[CLI]>_

2. Description:

Order	Diameter	Explanation
help(h)	show the system hint	
show(s)	check the system information	
show card（c）	No. of chassis (0 refers to the main chassis)	Chassis the information of media converter
show（s） bw	No. of chassis (0 refers to the main chassis)	check the band width
creat username	creat new user	
del XXXX	delete named user	
	username(u) XXXX	change current user's name
	password(p) XXXX	change current user's password
Set	writecommunity(w)	set the writing of SNMP
	ip(i) XXXX	set the internet IP address
	netmask XXXX	set mask off code
	gateway(g) XXXX	set gateway
control (c)	No. of chassis (0 refers to the main chassis) No. of media converter(1-16)	set information of media converter card

default(d)	recover to the factory setting
logout	exit

Chapter 4.Trouble shooting

If there are problem when installation like below, please solve them as below:

Failure	Causing
PWR indicators OFF after power on	●check the power supply of the chassis, whether card is inserted firmly
FXLNK indicator OFF	● make sure the connection cable connects two end firmly ●Check LFP, if it is ON, then disable LFP ●the transmission rate of media converter does not match with that of network working device
TPLNK indicator OFF	●fiber connector does not match with transceiver's port ●fiber link dispassion value is over high, receiving power is lower than the receiving sensitivity.
High package loss rate	●link rate or duplex mode unmatched, please subject to the recommened connection method. ●Plug head of CAT5 does not connect to RJ45 firmly; Fiber connector does not connect to transceiver firmly ●Wrong configuration of CAT5
Can not see the status of remote media converter	●Please make sure the remote control function of local media converter enable

Annex: please pay attention to the following items when installation.

1. When to start LFP?

There will be inconvenience even LFP is useful, because after enable LFP, it will be hard to judge the well connection of TP link. It can be the reason of remote TP link failure. So we suggest user close LFP when installation media converters, then user can judge the TO link through link LED. After installation, management center will start Link Loss function for all.

2. How to configure switch and router?

If all devices connecting to media converters are auto-sensing, then there is no need to do configuration. When the connecting device does not support auto-sensing, user has to configure the working mode of the media converter.

(If user's device working in fix rate, and media converter works in auto-sensing mode, media converter will auto sense to the mode of half duplex causing abnormal.)